Sprint

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EX PARTE

December 22, 1997

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street, N.W. Room 222
Washington, D.C. 20554

RE: CC Docket Nos. 96-45 and 97-160

Dear Ms. Salas,

On Friday, December 19, 1997, representatives of Sprint, US WEST, and BellSouth, joint sponsors of the Benchmark Cost Proxy Model (BCPM) met with members of the Commission's Common Carrier Bureau Universal Service Branch. Also participating via telephone was a representative of INDITEC International. The purpose of the meeting was to discuss the results of BCPM version 3.0 with respect to universal service costs in extremely rural areas. Attached are materials that were discussed in the meeting. We also discussed requests for additional model runs.

Representing Sprint were Brian Staihr, Jim Sichter, and Pete Sywenki. Representing US WEST was Glen Brown. Representing BellSouth was Whit Jordan. Representing INDETEC via telephone was Jim Stegeman. Representing the Commission Staff were Bryan Clopton, Chuck Keller, Natalie Wales, and Bob Loube.

Due to the meeting ending at a late hour on Friday, this notice is being filed today. The BCPM joint sponsors request that this notice be made a part of the record in this matter. Two copies of this letter, in accordance with Section 1.1206(a)(1), are provided for this purpose. If there are any questions, please call.

Sincerely,

Pete N. Sywenki

Pete Sywenki

Attachment

Montana Rural Area Analysis
Based on
BCPM3.0 Output Using 18K Grids

Using (maximum of) 18K grids, the BCPM builds 12,050 ultimate grids in the state.

GRIDS WITH NO HOUSEHOLDS AND NO (CURRENTLY SERVED) LINES

Of these 12,050 ultimate grids, 19.24% of them (2,319 grids) hold no households, only housing units.

Of these grids with no HH, 99.5% of them are located in lowest density zone (0-5 lines per square mile).

The model spends $39.9 million on Digital Loop Carriers to serve these grids.
The model builds $1.9 million of distribution cable to the housing units within these grids.
The model spends $107,339 on NIDs for these housing units.

Area covered by this set of grids (no HH) is 18.3% of total area served (14,169 / 77,494 sq. miles)

These grids account for less than 1% of total distribution costs ($1.9 million / $398 million).
These grids account for 18% of total feeder costs ($414 million / $2.3 billion).

GRIDS WITH AT LEAST ONE BUT LESS THAN 2 CURRENTLY SERVED LINES

Of the 12,050 ultimate grids, 15.1% of them (1,817 grids) serve at least one but less than 2 lines.

Of these grids with (essentially) a single customer, 99.1% are located in lowest density zone (0-5).

The model spends $36.7 million on Digital Loop Carriers to serve these grids.

Area covered by this set of grids (no HH) is 15.7% of total area served (12,187 / 77,494 sq. miles)

These grids account for less than 1% of total distribution costs ($1.8 million / $398 million).
These grids account for 15% of total feeder costs ($345 million / $2.3 billion).

GRIDS WITH AT LEAST TWO BUT LESS THAN 3 CURRENTLY SERVED LINES

Of the 12,050 ultimate grids, 16.7% of them (2,010 grids) serve at least two but less than three lines.

Of these grids serving (at most) two customers, 98.9% of them are located in lowest density zone (0-5).

The model spends $40.4 million on Digital Loop Carriers to serve these grids.

Area covered by this set of grids (no HH) is 17.8% of total area served (13,791 / 77,494 sq. miles)

These grids account for less than 1% of total distribution costs ($3.4 million / $398 million).
These grids account for 16.5% of total feeder costs ($380 million / $2.3 billion).

AGGREGATED EFFECT

These three subsets of grids (no households, 1 customer or two customers) represent over 50% of the grids constructed by the model (51.04%). However, they account for less than 9,000 lines[1], or less than 2% of lines built by the model in Montana.

The combined investment in electronics alone (DLCs) for these three sets of grids is $117 million. That represents over $13,500 per line constructed. However, it represents closer to $18,900 per line served.

Combined land area of these 3 subsets is over 50% of total area served in the state.

These 3 subsets of grids account for less than 2% of total distribution costs ($7.2 million / $398 million). These grids account for 49.4% of total feeder costs ($1.1 billion / $2.3 billion).

When these three subsets of grids are eliminated from the network build-out, the effect is as follows:

AVERAGE (Uncapped) Loop Investment decreases from $6,097 to $3,873.
This is a 36% decrease in the average investment caused by the elimination of less than 2% of lines.

AVERAGE (Uncapped) Monthly Cost Per Line decreases from $104.71 to $70.87.
This is approximately a 30% decrease in monthly costs.

AVERAGE Loop Length decreased from 22,252 to 20,967 (a decrease of 1,285 feet).

Total Aggregate Support at a $31 Res/$51 Bus benchmark decreased from $295.8 million to $198.0 million.
This is a 33% decrease in support (again) caused by the elimination of less than 2% of lines.

Total Loop Investment decreases from $2.70 billion to $1.67 billion, approximately 38%.

In the lowest density zone (0 to 5 lines per square mile)...

Total Investment per Line dropped from $49,761 to $29,993, approximately 39%.

Monthly Cost per Line dropped from $767.05 to $466.90, approximately the same percent (39%).

The number of GRID lines served went from 42,501 to 34,000.

[1] This is operating under the assumption that 1.05 lines are constructed to each housing unit in these grids that is not technically a household.

HOUSEHOLDS vs. HOUSING UNITS

The model, in its current form, constructs plant to all housing units (as defined by the Census Bureau) whether the unit is occupied or not, and whether the unit currently has phone service or not.

The BCPM Sponsors believe this approach comes closest to the spirit of the Act and the goal of universal service as outlined in the May 7th Order. However, for evaluation purposes it may be helpful to understand the financial impact this approach has on the costs the model estimates.

For Montana, standard output using the 18K grids and building to all housing units, we had:

Average Monthly Cost Per Line Served (Uncapped)	Average Loop Investment Per Line Served (Uncapped)	Total Uncapped Loop Investment	Average Loop Investment in Lowest Density Group
$104.71	$5,790	$2,699,875,303	$47,257

We then replaced the "Housing Units" column in the input files with the "Households" column. This had the effect of causing the model to "build" only to occupied households.

Average Monthly Cost Per Line Served (Uncapped)	Average Loop Investment Per Line Served (Uncapped)	Total Uncapped Loop Investment	Average Loop Investment in Lowest Density Group
$99.29	$5,428	$2,531,014,169	$39,943

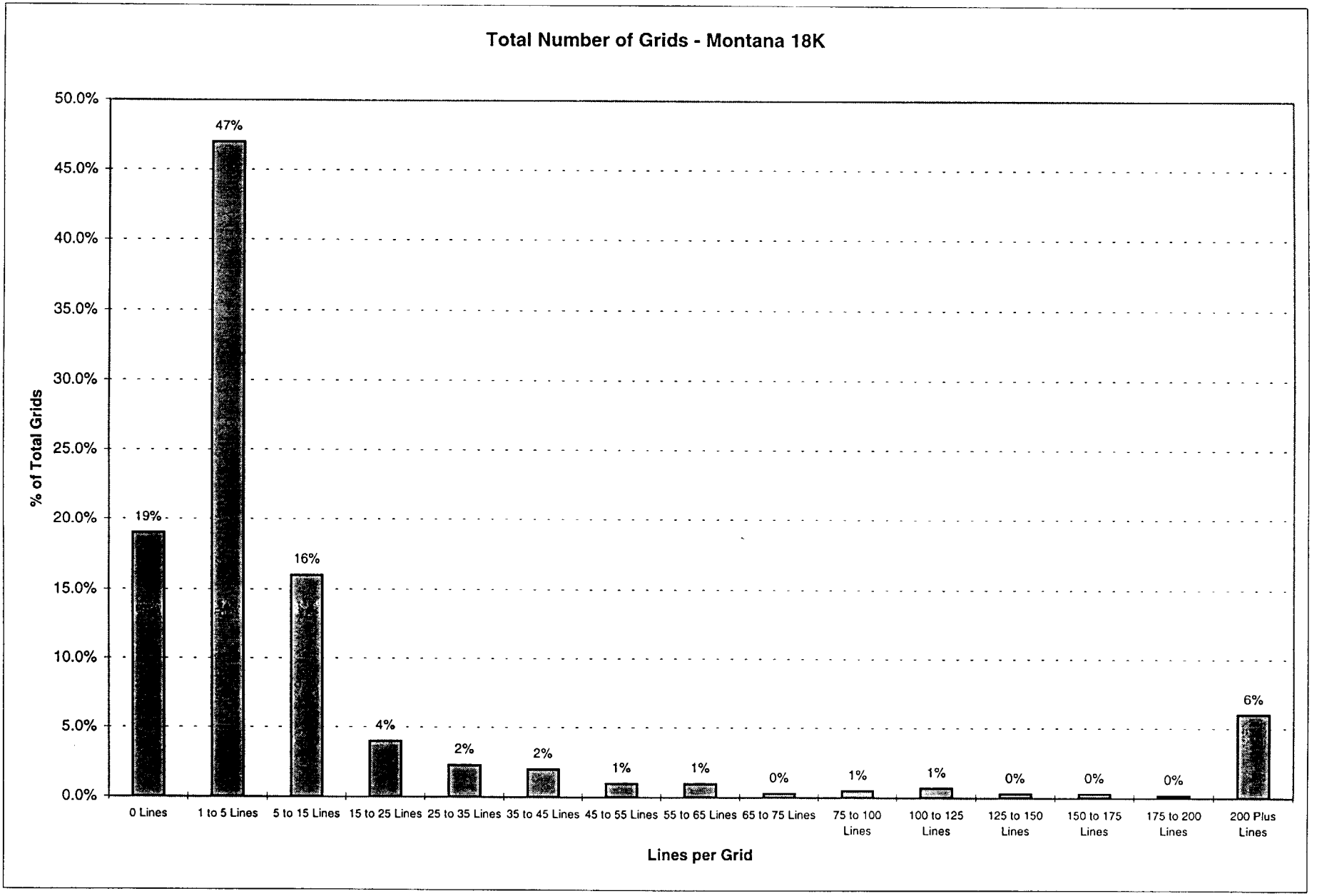
Notice this change reduces Total Loop Investment by over $160 million.

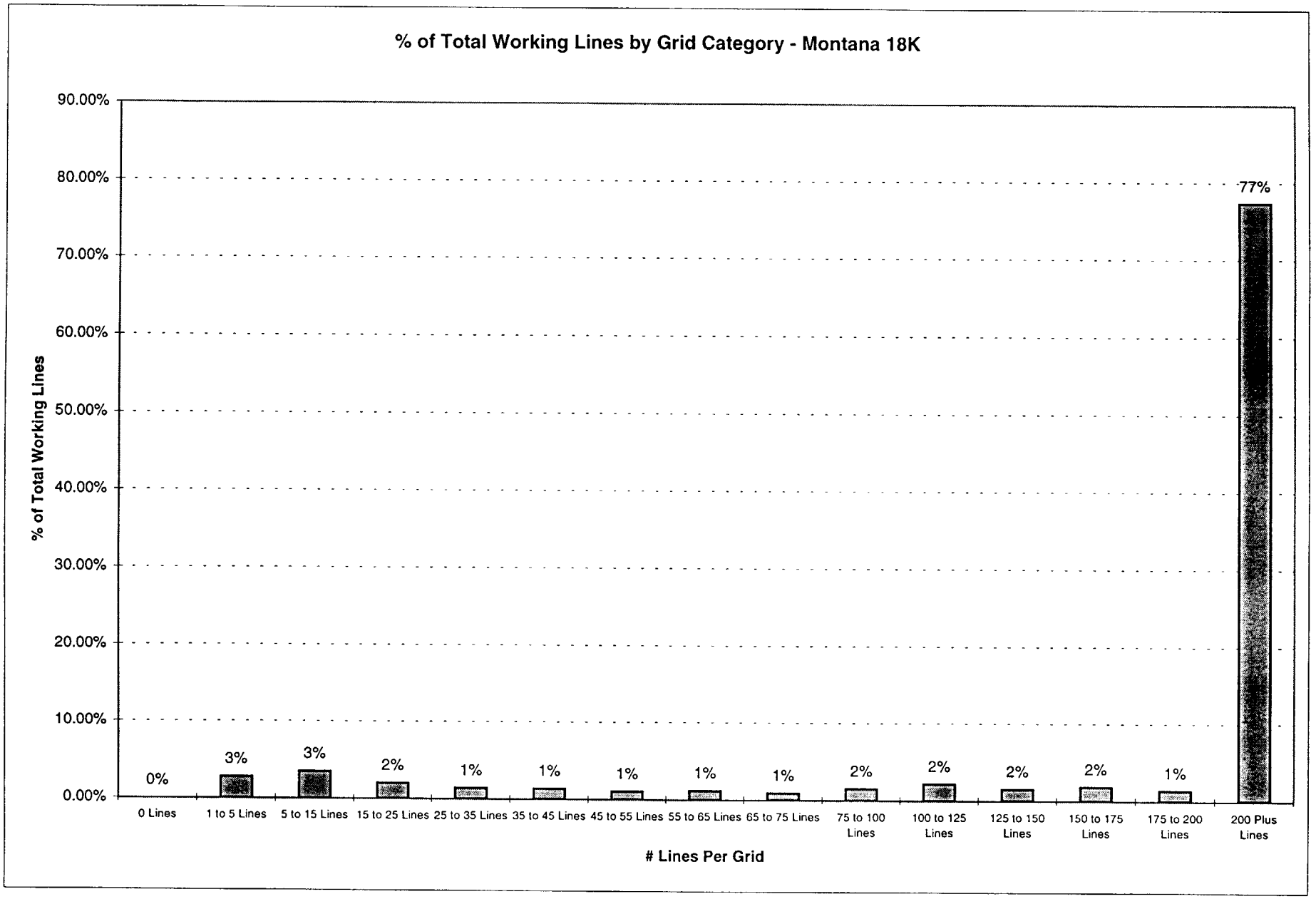
Taking the opposite approach, we then replaced "Households" with the "Housing Units" column in the input file. This had the ultimate effect of changing the number of lines by which "Cost Per Line" is calculated (because that line number is factored off of "Households").

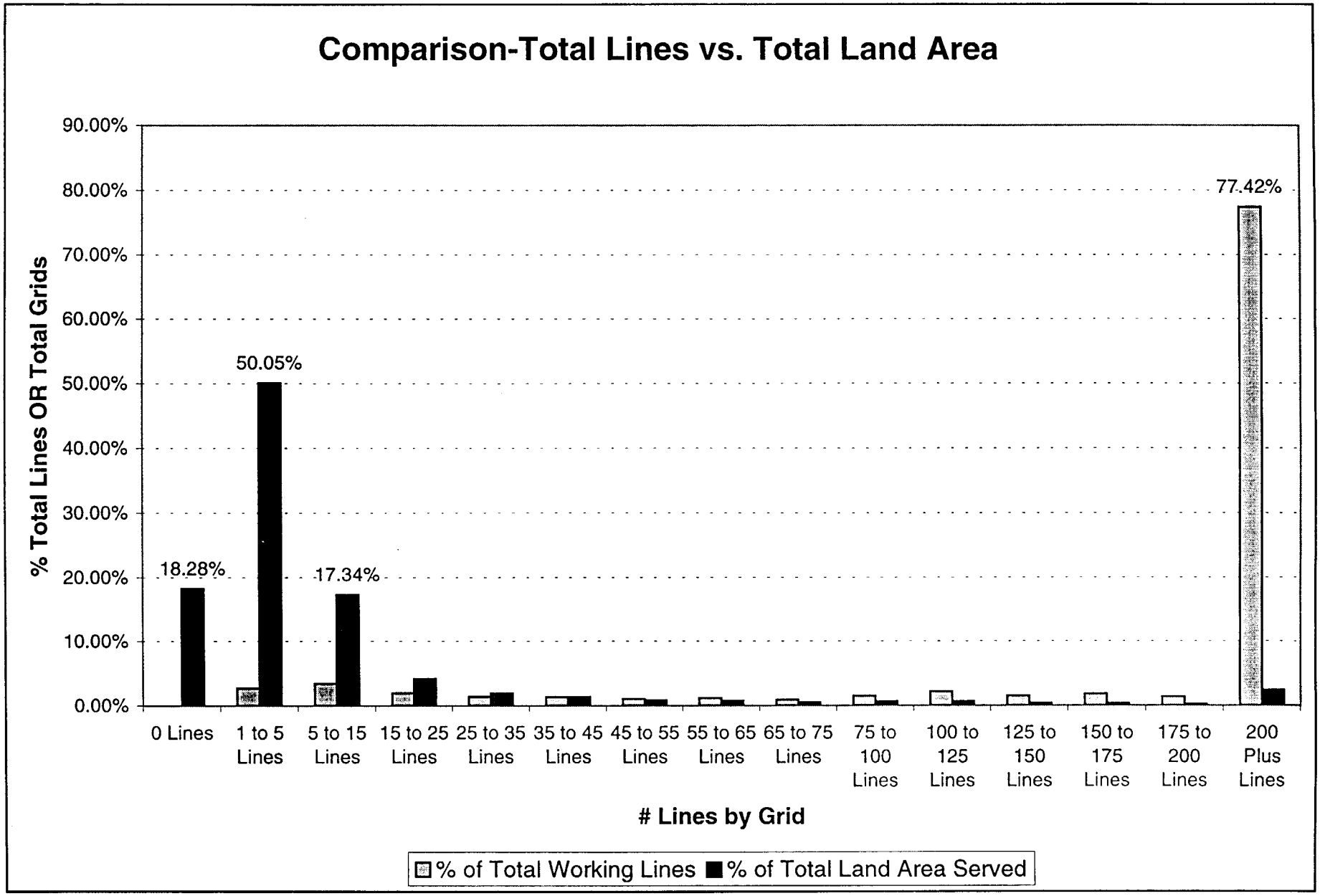
The result can be loosely interpreted as a "Cost Per Line Constructed by the Model".

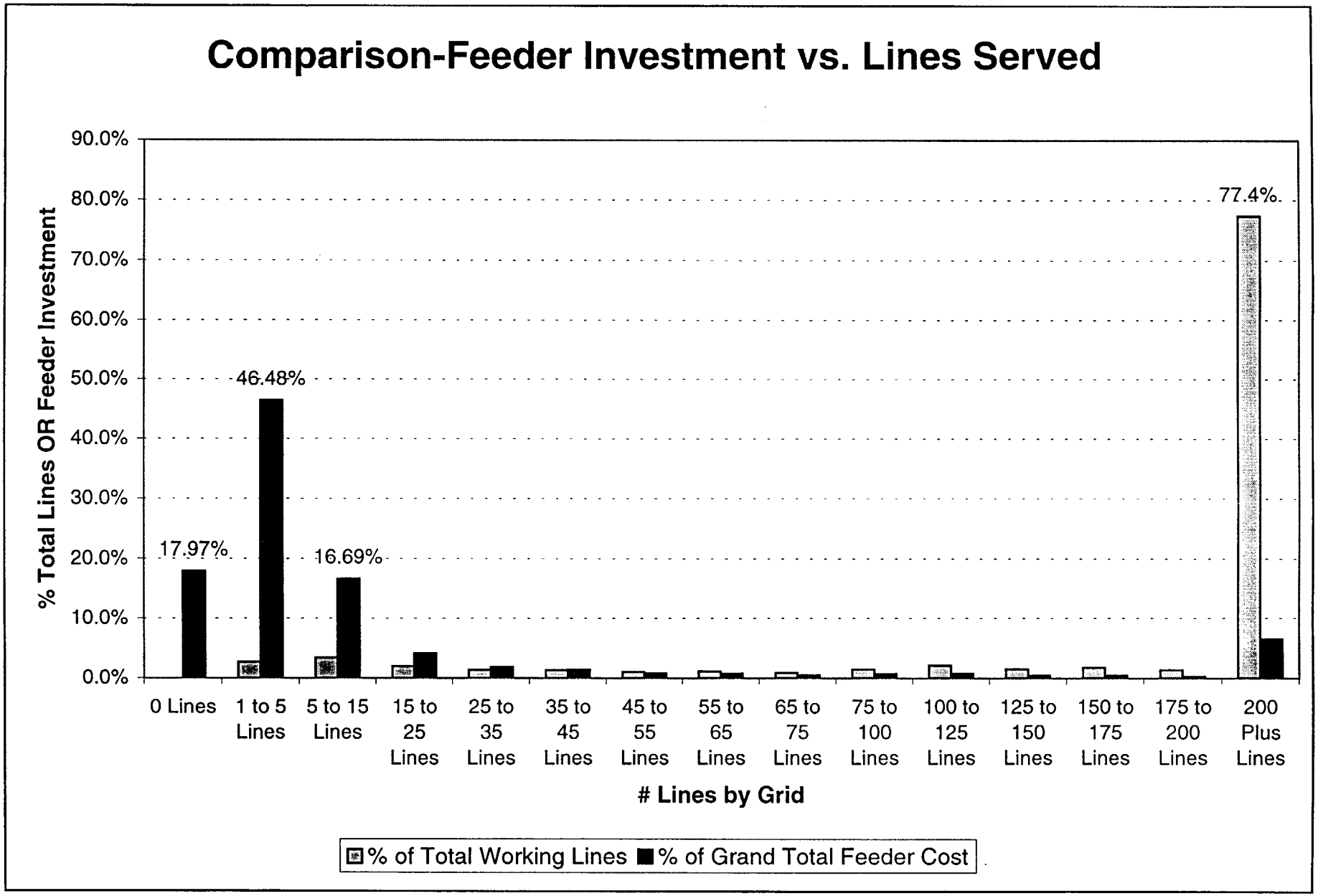
Average Monthly Cost Per Line Served (Uncapped)	Average Loop Investment Per Line Served (Uncapped)	Average Loop Investment in Lowest Density Group (Uncapped)
$94.31	$5,143	$33,229

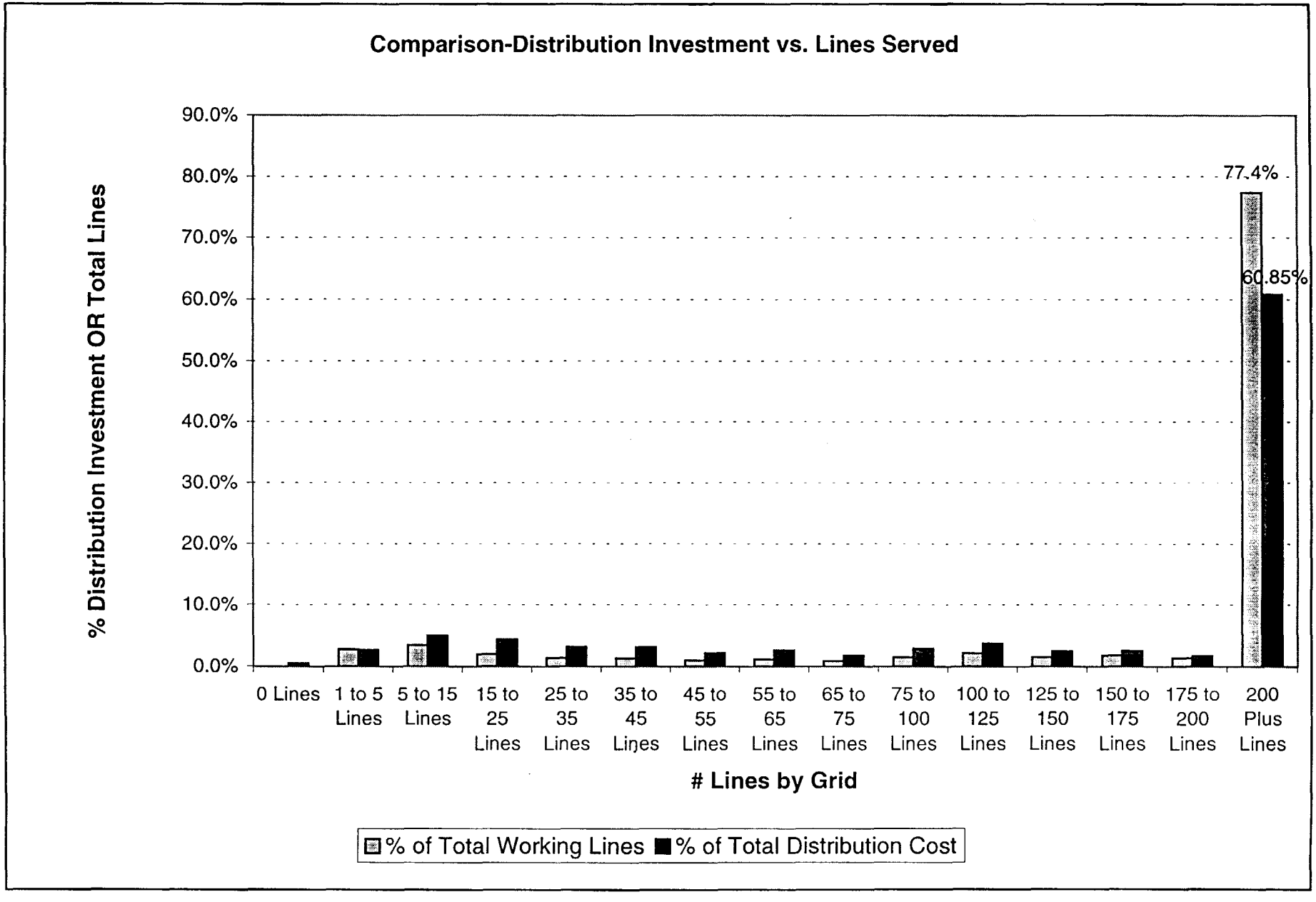
Total Investment dollars did not change significantly from the base run since the model always "constructed" this much plant.

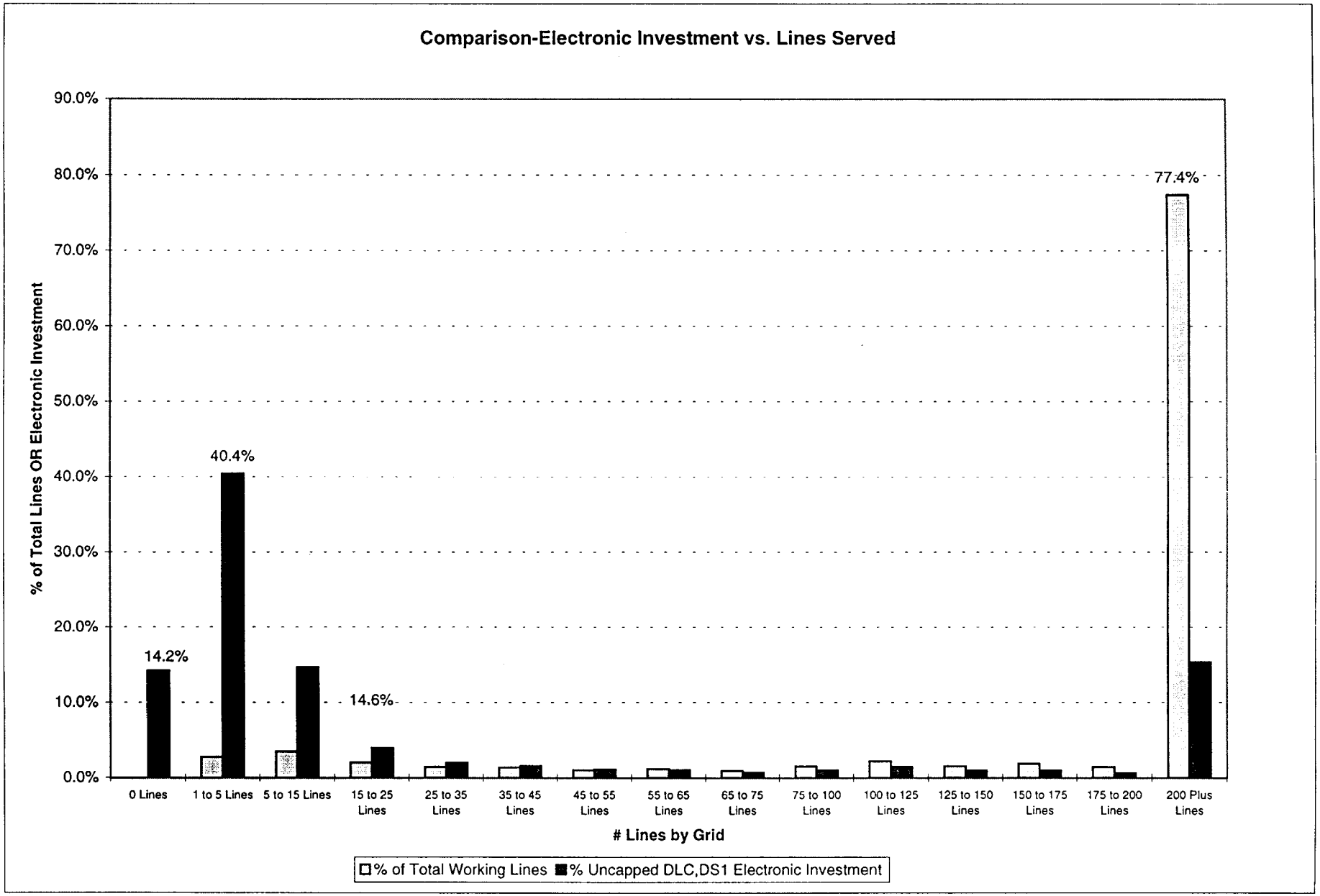

Total Number of Grids - Montana 18K
% of Total Grids
50.0%
45.0%
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
19%
47%
16%
4%
2%
2%
1%
1%
0%
1%
1%
0%
0%
0%
6%
0 Lines
1 to 5 Lines
5 to 15 Lines
15 to 25 Lines
25 to 35 Lines
35 to 45 Lines
45 to 55 Lines
55 to 65 Lines
65 to 75 Lines
75 to 100 Lines
100 to 125 Lines
125 to 150 Lines
150 to 175 Lines
175 to 200 Lines
200 Plus Lines
Lines per Grid


% of Total Working Lines by Grid Category - Montana 18K
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
% of Total Working Lines
0%
3%
3%
2%
1%
1%
1%
1%
1%
2%
2%
2%
2%
1%
77%
0 Lines
1 to 5 Lines
5 to 15 Lines
15 to 25 Lines
25 to 35 Lines
35 to 45 Lines
45 to 55 Lines
55 to 65 Lines
65 to 75 Lines
75 to 100 Lines
100 to 125 Lines
125 to 150 Lines
150 to 175 Lines
175 to 200 Lines
200 Plus Lines
Lines Per Grid

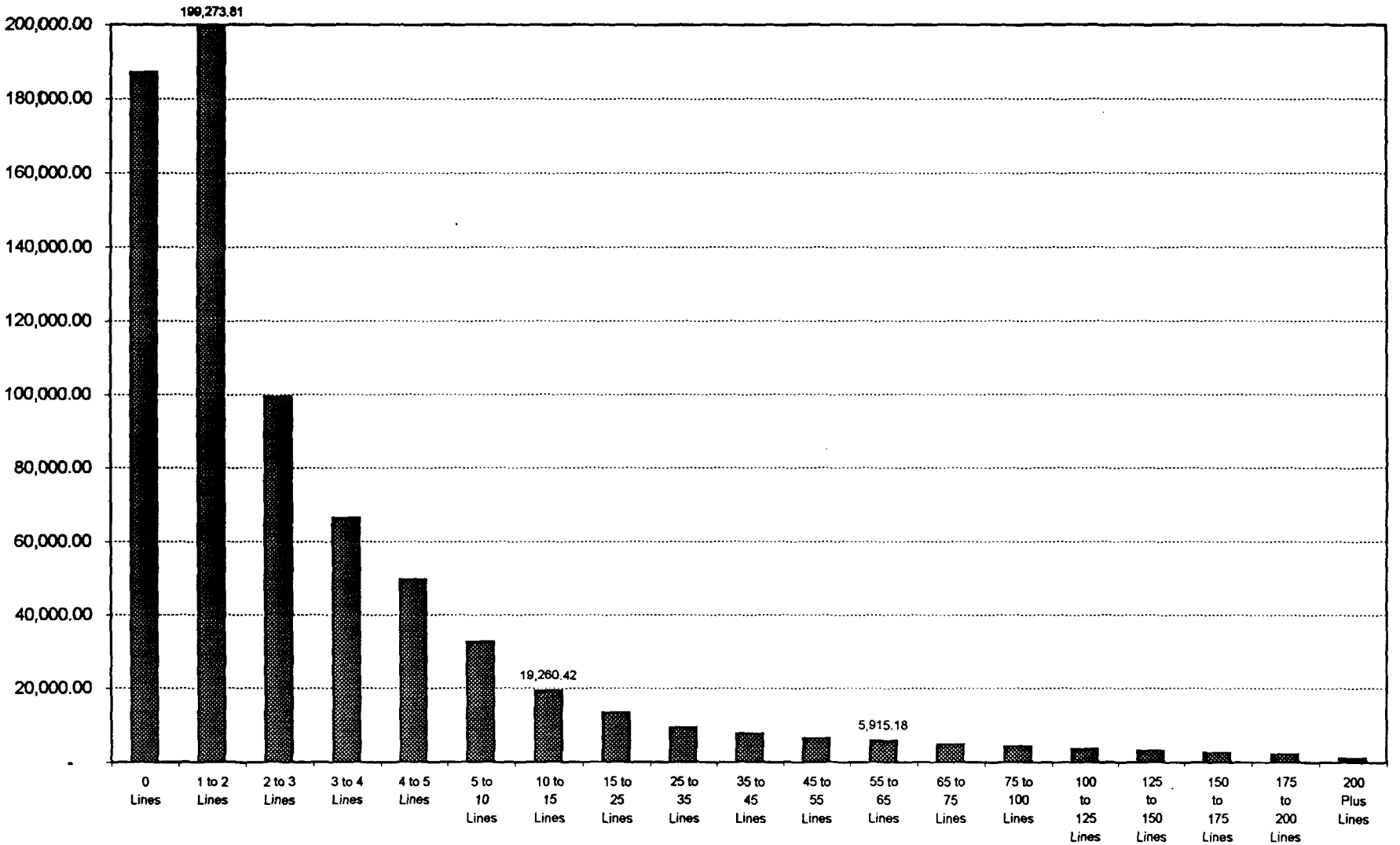

Comparison-Total Lines vs. Total Land Area
% Total Lines OR Total Grids
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
18.28%
50.05%
17.34%
77.42%
0 Lines
1 to 5 Lines
5 to 15 Lines
15 to 25 Lines
25 to 35 Lines
35 to 45 Lines
45 to 55 Lines
55 to 65 Lines
65 to 75 Lines
75 to 100 Lines
100 to 125 Lines
125 to 150 Lines
150 to 175 Lines
175 to 200 Lines
200 Plus Lines
Lines by Grid
% of Total Working Lines
% of Total Land Area Served


Comparison-Feeder Investment vs. Lines Served
% Total Lines OR Feeder Investment
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
17.97%
46.48%
16.69%
77.4%
0 Lines
1 to 5 Lines
5 to 15 Lines
15 to 25 Lines
25 to 35 Lines
35 to 45 Lines
45 to 55 Lines
55 to 65 Lines
65 to 75 Lines
75 to 100 Lines
100 to 125 Lines
125 to 150 Lines
150 to 175 Lines
175 to 200 Lines
200 Plus Lines
Lines by Grid
% of Total Working Lines
% of Grand Total Feeder Cost


Comparison-Distribution Investment vs. Lines Served
% Distribution Investment OR Total Lines
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
77.4%
60.85%
0 Lines
1 to 5 Lines
5 to 15 Lines
15 to 25 Lines
25 to 35 Lines
35 to 45 Lines
45 to 55 Lines
55 to 65 Lines
65 to 75 Lines
75 to 100 Lines
100 to 125 Lines
125 to 150 Lines
150 to 175 Lines
175 to 200 Lines
200 Plus Lines
Lines by Grid
% of Total Working Lines
% of Total Distribution Cost


Comparison-Electronic Investment vs. Lines Served
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
% of Total Lines OR Electronic Investment
14.2%
40.4%
14.6%
77.4%
0 Lines
1 to 5 Lines
5 to 15 Lines
15 to 25 Lines
25 to 35 Lines
35 to 45 Lines
45 to 55 Lines
55 to 65 Lines
65 to 75 Lines
75 to 100 Lines
100 to 125 Lines
125 to 150 Lines
150 to 175 Lines
175 to 200 Lines
200 Plus Lines
Lines by Grid
% of Total Working Lines
% Uncapped DLC,DS1 Electronic Investment

Average Investment Per Line Constructed



Support @ $31 for Various Wireless Caps